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GYROCERAS (NAUTILUS?) INELEGANS, Meek.

Shell attaining a large size, subdiscoidal. Volutions about two and a half to three, increasing rapidly in size, having a somewhat greater dorso-ventral than transverse diameter, being moderately compressed on each side, narrowly rounded over the periphery, and rounding regularly into the umbilicus, which is of moderate depth and distinctly narrower than the dorso-ventral diameter of the outer whorl. First turn apparently slightly embraced by the second, which seems to become free toward the aperture. Septa rather distant, deeply concave on their anterior faces, and all crossing the sides and periphery with very slight backward curves; separated from each other on the periphery by spaces equalling about half the dorso-ventral diameter at the point of measurement. Body chamber large, or forming half the outer volutions; aperture not expanded; lip sinuous on the outer side. Surface of cast showing, on the inner volutions, some traces of rather distant transverse ridges, which become nearly or quite obsolete on the outer turn. Siphuncle and finer surface markings unknown.

Greatest diameter across the disc of a specimen a little compressed by accidental pressure, nine inches; dorso-ventral diameter of last turn near the aperture, 4.10 inches; transverse diameter of same, 3.50 inches.

This is another form in regard to the generic characters of which I am in doubt. Its more rapidly expanding volutions, more rounded periphery, proportionally narrow umbilicus, and closely contiguous, or even slightly embraced inner turns, give it a much more nautiloid look than the last, and I should scarcely hesitate to refer it to the genus *Nautilus*, if it were not for the fact that the outer volution seems to be a little detached at the aperture. Still, this may possibly be due to compression.

Locality and position. Corniferous group, Marion County, Ohio.

CRUSTACEA.

PROETUS PLANIMARGINATUS, Meek.

Pygidium depressed, semi-elliptic, the length and breadth being nearly as five to seven; anterior margin gently arcuate or convex in outline; posterior somewhat narrowly rounded; lateral margins diverging forward, with slightly convex outlines, to the anterior lateral angles, which are not truncated. Mesial lobe rather depressed, but rounded and well defined, narrow, or only about two-thirds as wide at its anterior end as the lateral lobes, tapering gradually, with straight sides, to its posterior extremity, which terminates at a distance of about half the breadth of the anterior end, within the margin; provided with about twelve or thirteen nearly straight segments, most of which are well defined. Lateral lobes gently convex, sloping gradually from near the middle to the lateral and posterior margins, which are horizontally flattened, but not thickened; segments eight or nine, not extending upon the flattened margins, and each divided its entire length, by so broad a furrow (flat within) that only a very narrow anterior and posterior margin is left projecting, and merely separated from that of the contiguous segment by a faint linear depression, thus presenting the appearance of narrow ribs or segments longitudinally marked by faint linear furrows, and separated from each other by broad flattened depressions. Surface apparently nearly smooth. (Other characters unknown.)

Length of pygidium, 0.64 inch; breadth, 0.94 inch; height of lateral lobes, 0.13 inch; do. to top of mesial lobe at its anterior end, 0.23 inch.

The pygidium of this species seems to present much the same proportions as the corresponding part of *P. Haldemani*, Hall, from the Hamilton group; but it has a proportionally narrower mesial lobe, and a smaller number of segments in the lateral lobes. It also differs in having a distinctly flattened instead of thickened border. If I have correctly understood the nature of the segments of its lateral lobes, they are also very different from those of *P. Haldemani*, being provided with wide flattened longitudinal furrows. These furrows are so wide and strongly defined that I have been in some doubt whether they ought not rather to be regarded as the divisions between the segments (which, in that case, would be represented by the comparatively narrow intervening furrows) than as the furrows of the segments themselves. On tracing them inward, however, to the mesial lobe, they are found to be abruptly narrowed and curved slightly forward as they approach the latter, so as to seem to correspond to the furrows *on* the segments, rather than to depressions *between* them.

None of the specimens show much of the surface, but, as far as it can be seen, it seems to be smooth, and to coincide exactly with the smallest elevations and depressions of the internal cast, from which the foregoing description was drawn up.

Locality and position. Upper part of the Corniferous group, Sylvania, Lucas County, Ohio. Devonian. Mr. Gilbert's collecti

DALMANITES OHIOENSIS, Meek.

Pygidium large, depressed, semi-elliptic or semi-oval in general outline, nearly straight or gently convex in outline on the anterior margin, with the lateral angles a little rounded; posterior extremity somewhat raised and truncated, with the lateral angles of the truncated margin produced into two rather short, distinctly converging spines. Mesial lobe narrow, or only equalling half the breadth of each lateral lobe at the anterior ends, depressed and gradually tapering to the posterior end, which terminates very near the truncated posterior margin; rather distinctly separated by the furrow on each side from the lateral lobes; segments about eighteen, passing straight across, and separated by well-defined furrows, that are narrower than the segments themselves, which are not furrowed. Lateral lobes most convex along somewhat within the middle, where they are nearly or quite as high as the mesial lobe, toward which they slope slightly on the inner side, while beyond the middle they slope off gradually to the lateral margins, which are very narrow, not thickened above, and curve outward nearly horizontally; segments about fifteen, widening slightly outward, and separated by deep, well-defined furrows extending very nearly to the lateral margins; the larger ones showing faint traces of a slender longitudinal furrow along the middle, while all, excepting a few of the smallest posterior ones, are produced beyond the lateral margins in the form of slender, sharp rounded spines, that curve a little backward and upward. Surface nearly or quite smooth. Thorax and cephalic shield unknown.

Length of pygidium, 1.70 inch; breadth, 2.70 inches; height or convexity, 0.25 inch; breadth of posterior truncation, 0.45 inch; length of longest spines projecting from lateral margin, 0.38 inch.

This Trilobite seems to be closely allied to *D. myrmecophorus* (= *Asaphus myrmecophorus*), Green, to which I was at one time inclined to refer it. A careful comparison, however, with the